

2000

Annual Water
Quality Report



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CITY OF NEWARK

Pequannock and Wanaque
(NJDWSC) Water Systems

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tic systems, agricultural livestock operations, and wildlife. • Inorganic substances such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. • Pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses • Organic chemical substances including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems. • Radioactive substances that can be naturally occurring or can be the result of oil and gas production and mining activities. • To ensure that tap water is safe to drink, the Environmental Protection Agency prescribes regulations that limit the amount of certain substances in water provided by public water systems. Food and Drug Administration regulations establish limits for substances in bottled water that must provide the same protection for public health.

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for asbestos and synthetic organic chemicals.

Required Additional Health Information

Special Considerations Regarding, Children, Pregnant Women, Nursing Mothers, and Others:

Children may receive a slightly higher amount of a contaminant present in their water than adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than adults do. For this reason, reproductive or development effects are used for calculating a drinking water standard if these effects occur at lower levels other than health effects of concern. If there is insufficient toxicity information for a chemical, an extra uncertainty factor may be incorporated into the calculation of drinking water standard, thus making the standard more stringent, to account for uncertainties regarding these effects. In the case of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.



Nitrate: Nitrate in drinking water

at levels above 10 ppm is a health risk for infants of less than six months age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Lead: Infants and young children are typically vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the vicinity as a result of materials used in your home plumbing. If you are concerned about elevated lead levels in your home water, you may wish to flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water hot line at 800-426-4791.

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Funding for the City of Newark's 2000 Annual Water Quality Report is provided by the Department of Water and Sewer Utilities.

Newark's Water Quality Report

Regulated Contaminants	Units	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)	Results		Source of Contaminant
				Pequannock System	Wanaque System	
Inorganic Contaminants :						
Barium	ppm	2	2	0.011	0.0088	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	ppb	100	100	N.D	N.D	Erosion of natural deposits; discharge from steel and pulp mills
Copper	ppm	1.3	AL=1.3	0.086	0.29	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	ppm	4	4	0.06	0.048	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	ppb	0	AL=15	11.1	24	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as nitrogen)	ppm	10	10	0.077	0.264	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radiological Substances:						
Gross Alpha	pCi/l	0	15	0.04	0.52	Erosion of natural deposits
Regulated Contaminants	Units	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)	Results		Source of Contaminant
				Pequannock System	Wanaque System	
Microbiological Substances:						
Total Coliforms Bacteria	Presence of positive sample	0	Presence of Coliforms in >5% of monthly samples	0	0	Naturally present in the environment
Volatile Organic Chemicals:						
VOC'S	ppb		MCL dependent on specific VOC	N.D.	N.D.	VOC's come from industrial chemical factories discharges. They include benzene, toluene and naphthalene
Turbidity :						
Turbidity	ntu	N.S.	TT	0.17-0.48	0.1-0.63	Soil runoff
Treatment by-products:						
Total (TTHM's) Trihalomethanes	ppb	0	100	46-84 Average=70.1	36-58 Average=46.5	By product of drinking water treated with chlorination
Secondary Contaminants	Units		Secondary Contaminant Level (SCLG)	Results		Source of Contaminant
				Pequannock System	Wanaque System	
Alkalinity	ppm		NS	26.5	43.8	A characteristic of water caused primarily by carbonate, bicarbonate and hydroxide ions
Aluminum	ppm		0.2	0.028	0.1	By-product of water treatment using aluminum salts
Calcium	ppm		NS	12.9	26	Erosion of natural deposits
Chloride	ppm		250	37.1	60	Erosion of natural deposits
Chlorine Residual	ppm		4	0.7	1.2	Chlorine remaining in treated water and available to destroy disease causing organisms
Color	CU		10	4	5	Presence of manganese and iron, plankton, humus, peat and weeds
Hardness	ppm		50-250	46.9	79	A characteristic of water caused primarily by salts of calcium and magnesium
Magnesium	ppm		NS	3.2	6	Erosion of natural deposits
Manganese	ppm		0.05	0.01	0.013	Erosion of natural deposits
Odor (TON)	TON		3	1	1	Algae and plant matter
pH	units		6.5-8.5	8.28	8.3	Presence of carbonates, bicarbonates and carbon dioxide
Sodium	ppm		50	12-16	25-73	Runoff from road salt and from some water softening processes
Sulfate	ppm		250	13.1	21	Drainage of mining wastes, erosion of natural deposits
Total Dissolved Solids	ppm		500	96	187	Erosion of natural deposits
Additional Contaminants Regulated in NJ	Units	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)	Results		Source of Contaminant
				Pequannock System	Wanaque System	
Meta-Dichlorobenzene	ppb	600	600	ND	ND	Discharge from industrial chemical factories
1,1-Dichloroethane	ppb	50	50	ND	ND	Discharge from metal degreasing sites and factories
Methyl tertiary-butyl Ether (MTBE)	ppb	70	70	ND	ND	Leaking Underground storage tanks, oil spills
Naphthalene	ppb	300	300	ND	ND	Discharge from industrial chemical factories
1,1,2,2-Tetrachloroethane	ppb	1	1	ND	ND	Discharge from industrial chemical factories

This is an annual report on the quality of water delivered by City of Newark. It meets the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. Safe water is vital to our community. Please read this report carefully and, if you have questions, call the numbers listed below.

THE CITY OF NEWARK'S DRINKING WATER MEETS OR SURPASSES ALL FEDERAL AND STATE DRINKING WATER STANDARDS.

Call us for information about the next opportunity for public participation in decisions about our drinking water at (973) 256-4965. Find out more about the City of Newark on the Internet at <http://www.ci.newark.nj.us/>

The report contains important information about our drinking water. If you do not understand it, please have someone translate it for you.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Este reporte contem informações importantes sobre a sua água de beber. Traduza-o ou fale com alguém que o compreenda.

OVERVIEW - Water Source

The City of Newark's water comes entirely from surface sources in the Pequannock and Wanaque watersheds that covers 150 square miles of forest lands in Morris, Sussex and Passaic Counties. Newark's Pequannock Supply is from five pristine water supply reservoirs; the 14.4 billion gallon supply is from Charlottesburg, Echo Lake, Canistear, Clinton and Oak Ridge reservoirs. NJDWSC gets its water from two of the most pristine water supply reservoirs in the country; namely, the 29.6 billion gallon Wanaque and the 7 billion gallon Monksville. The Commission also operates two pump stations designed to pump 250 million gallons per day of water from the Pompton River and 150 million gallons per day from the Ramapo River into the Wanaque Reservoir as needed. To date, the Bureau of Safe Drinking Water has not completed an assessment for our sources of drinking water. Source water assessment will be completed for all sources of public drinking water by May 2003.

Safeguarding Our Water

The City of Newark Water Treatment plant is located in West Milford and the NJDWSC Water Treatment Plant is located in Wanaque, NJ, where water is purified and filtered to ensure its safety and potability. To ensure the safety of the water, NJDWSC and Newark routinely monitors and tests the water at rivers, lakes and streams that supply its reservoirs. We continually monitor the quality of water throughout the distribution system which finds its way to you, the consumer. This is all done at fully NJDEP and EPA Certified Water Quality Laboratories.

What Does This Table Mean?

The table shows the results of our water quality analysis. The table contains the name of the substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

Key To Table

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

ppm (parts per million): 1 drop in 10 gallons, 1 inch in 16 miles, or one penny in \$10,000.